



Body Armor Sizing and Development for Female Soldiers

Overview:

Accommodation of females in soft vest and plate body armor systems presents a unique set of design problems. Incorporating females into male-based systems may impose disproportionate protective and functional sacrifices on females.

The **Body Armor Sizing and Development for Female Soldiers** program is targeting three primary technical objectives:

- Determine vital organ vulnerability and body surface exposure as a function of armor size and shape.
- Identify characteristics of armor size and shape that restrict mobility.
- Determine the feasibility of accommodating males and females within the same sizing system.

Static and dynamic fit tests of females and males in three existing armor systems with different sizing strategies are being conducted. Future body armor design options depending upon fit test outcomes include calculating pattern alterations to male armor systems to accommodate females by modifying areas of poor fit and function; developing an exclusive female-specific design and sizing system.

The ultimate objective for this program is to develop a framework for designing next-generation body armor systems that provide equal protection and function for males and females.

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